THE PLACE OF VALUE THEORY IN ECONOMICS. II

VI

If we are prone to look upon the three decades of the history of economics following the first appearance of Mill's treatise as years which the worms ate up, it is because we note only the economics formally pent up in books. During this period new conditions were arising which were to gain strength and eventually to effect profoundly both the general subject and the semi-independent disciplines with which it was soon to be surrounded. These conditions in fulness of time produced their vintage in a new economic theory concerned almost exclusively with the value problem and in the complementary appearance of several semi-theoretical or non-theoretical economic disciplines. Their impress has been so distinct that the newer position of value theory in the enlarged complex of economics can be shown only by enumerating and discussing quite specifically three of the most important of these influences.[1]

The first and the most important of these was the conversion of the subject of economics itself into an institution. So long as economics was political economy, so long as a statement of principles was conditioned upon a consideration of problems, so long as the building of systems had to wait upon popular concern, the subject was a capricious and vacillating one. The replacement of the

[1] From this point on it is manifestly impossible to proceed by using the sequence of the most significant writers as a thread whereon to hang explanations of successive stages of development. Since they are numerous, since their systems are delicately fashioned, and since much of their emphasis falls upon their differences over non-essentials, they run in too many directions and converge upon inquiries too particular to suit the crude purpose of this study. Accordingly, in contrast to the method already used, the tendencies which have characterized the development of economics in its latter-day stages will have to be considered abstractly. Individual writers will be used only to illustrate particular points. Inasmuch as the purpose of this study is to indicate the position of value theory in current economic speculation in this country, the illustrations used are confined to the sequence of writers and schools who have been most responsible for it. This sequence, historically true, is neither a strict chronological nor a national one. It starts with the early classicists, continues with the Austrians, and reaches current expression in the American productivity school,

economics of Smith by that of Ricardo is significant of the spirit of change which its development had to obey. Since amid the facts of social development new problems were constantly arising, since many angles of vision were held by the too-busy workers in the field, and since the personnel of the subject was constantly being replaced by men recruited from all walks of life, the body of doctrine which came into repute was of small volume, loosely tied together, and chaotic in character. Among unorganized workers ties could not be strong, and at best tradition could gain but an uncertain hold on their endeavors.[1]

The standardization of economics as an academic discipline changed the character of the personnel through whose intellectual efforts development had to take place. Freedom from direct concern with practical problems robbed economics of the capricious but enthusiastic explorers who invaded uncharted regions and brought back truths or would-be truths extremely valuable in the humdrum universe of here and now. Their places were taken, not by hardy adventurers, like Smith and Ricardo, who dared to blaze new trails, but by conventional and respectable workers who had

of which Mr. J. B. Clark is the best expression, Mr. Fetter and Mr. Fisher represent a first variant, and Mr. Davenport a second variant. The statements in the text, accordingly, true as they are of American theorists as a class, can be applied to particular authors only with the necessary exceptions and qualifications. It is evident that their lack of applicability increases directly with their departures from utility-productivity theory. It must be distinctly understood that generous qualifications are necessary to fit the conclusions of the text to the current status of economic theory in England. The difference is due to the more lasting influence of classical traditions there, the less permanent impress left by Austrian doctrine, and the intellectual dominance of Mr. Marshall. His work has been studied and quoted here, but it has left little permanent impress either upon the concept of economics or upon the nature of inquiries into value and distribution in this country.

[1] Perhaps the reader, contemplating the well-known sequence from Smith to the younger Mill, including as it does besides them, Say, Malthus, Bentham, Ricardo, McCulloch, the elder Mill, Whately, Senior, as well as lesser dignitaries, may regard this statement as too strong. But in defense of it, it needs be said: first, that the works of these authors represent in volume an inconsiderable part of the economic literature of the period covered; and, secondly, that the unity which they possess is largely one imputed to them by selection and interpretation after economics became a relatively stable thing in the scheme of academic studies. As for definite evidence of the loose connection of doctrines in the period of the classics the reader is referred to Mill's ill success in organizing them into a coherent scheme.

curiosity, energy, and a wonderful love of order.[1] Since the economics which appealed to them was the economics which had become an intellectual discipline, they came to it first as learners. Before they made contributions to the literature wherein lay the record of its development they mastered its dogma and learned to respect its traditions. Since they were of the world they could not make themselves immune to passing circumstance, nor did they wish to do so, provided attention to the mundane did not interfere with the development of the subject along traditional lines. Yet the compelling influence which animated them came from within.

Such conformity, however, by no means meant acceptance of the discipline as they found it. If they were not primarily concerned with the social relevancy of the system as a whole, men who were drawn to ecomonics by the logic and symmetry of its structure could not long remain blind to its inconsistencies and to its possibilities of more subtle statement and more articulate arrangement. They were sure to appreciate the clumsiness of the old concept of wealth with its vacillations in meaning between social welfare, material goods, and pecuniary income. To escape from its capricious tyranny they could crowd more and more of the idea of pecuniary income into it or, better still, they could replace it by the far more coherent concept of value. In terms of one or the other of these new concepts they were called upon to re-examine the whole subject, to discard the irrelevant, to throw into subordinate disciplines the nearly irrelevant, and to transform the contents of Mill's catholic category into a logical unity. However far the

[1] Whatever may be true of the intellectual predilections of those who went into economics in the seventies and eighties of the last century, the institution of the doctorate as the accedited way of producing economists has resulted in a conventionalized product. "The output of such a system will in the main be an output of conformists. Some students will, of course, become radicals through revolt. More, perhaps, will simply be lost to economics by disaffection. The majority will be economists of sorts, creditable on the whole, safe, sane, and unoriginal. Their drill has been such as to assure them against going far off the path. But their chances of going splendidly right in the direction of originality and creative thought would have been better if their training had been less pervaded by the spirit of authority."—James A. Field, "The Place of Economic Theory in Graduate Work," *Journal of Political Economy*, XXV, 54.

subject tended to be removed from the swiftly changing complex of social life, as an independent subject it tended more and more to an inner consistency based upon a progressively refined concept of value.

The second of the tendencies leading to the transformation of value theory into economic theory was the dominance which the mechanistic logic was coming to exert over academic work. The characteristics of this method are so obviously familiar that they require no extended presentation here. They include assumptions of the homogeneity and subservience to exact measurement of the several things to be studied, of the divisibility of the whole into all-comprehensive and mutually exclusive parts, of the unchanging identities of the objects of investigation, and of inclusion of an object or class within or its exclusion from a larger class as a method of proof. It is essentially a logic of matter, of quantity, of statics; the questions which it permits to be asked can be answered in quantitatively precise terms; the result of a sustained inquiry can be stated as a mathematical formula. This method, obviously applicable to mathematics and to sciences, which, like physics and astronomy, prosecute quantitative inquiries, came to dominate academic work generally. It not only expressed itself in researches in the natural sciences, but thrust its tools of investigation into the hands of workers seemingly as little in need of them as students in history, psychology, literature, and religion. In the industrial realm it was at the basis of both the machine technique and the pecuniary calculus, the two institutions most responsible for the essential characteristics of industrialism. There is small wonder that it became a magic ritual into terms of which ordinary activities were translated. Almost unquestioned it was accepted, not as a mechanistic logic, suitable for certain inquiries, but simply as "logic" or "scientific method," a procedure of unqualified efficacy and universal applicability.

To the influence of this method economics proved particularly susceptible. It was well adapted to the problem of reconstructing a subject which was losing its connection with practical affairs and was assuming a self-centered consistency. It was accepted; and in contradiction to the traditional name of "political economy," in

which there was a vested interest which could not be sacrificed, economic speculation became a science. As such its concern became "economic phenomena," all of which were projected upon the same temporal and institutional plane for quantitative study. As such it sought to discover principles or to formulate laws of universal application. The ideal which economists set before themselves was truth which transcended the limitations imposed by the conventions in terms of which society was organized and attained to eternal verity. They sought statements which could be printed in italics. Even the stream of change, which was at flood at the time, did not cause the busy workers to become pessimistic over the attainment of such ultimate ends. Much of this change was beyond the narrow boundaries which tradition was beginning to assign to theory, and its votaries were not professionally compelled to take account of it. But so far as it was noticed they were not disturbed. They insisted that, however complex a situation, it could be resolved into mechanically distinct elements, and that the principles deduced from a consideration of these could be compounded into a formula covering the situation.[1] Devotion to the method led to a comparison of the truths of economics with those of the natural sciences, a comparison by no means unfavorable to economics.[2] In time there came to be a large literature arguing for the truths of the hypothetical laws of economics.

The accommodation of economics to the new methodology was for a time quite uncertain. At first it found expression in such diverse ventures as the rise of the early statistical school and the

[1] A tardy and partial recognition of social change has led to an addition of "dynamics" to economic "statics." Its function is suggested by the following quotation: "Finally it is necessary to study the forces of progress. To influences which would act if society were in a stationary state we must add those that act only as society is thrown into a condition of movement and disturbance. This will give us a science of Social Economic Dynamics. It will bring the society that figures in our theory into a condition that is like that of the actual world. . . . . A different set of forces is acting in connection with the static ones, and real values, wages, are the resultant of the two kinds of forces."—John Bates Clark, "The Future of Economic Theory," in *Quarterly Journal of Economics*, XIII, 10–11.

[2] For an interesting and enthusiastic comparison of this kind by one whose reputation was made in astronomy see Simon Newcomb, "The Two Schools of Political Economy," in the *Princeton Review*, XIV, 291–301, and "The Method and Province of Political Economy," in the *North American Review*, CXXI, 241–70.

attempt of the German historical school to dominate the subject. The first sought precision and found it, but it failed to satisfy the demands made upon the science for laws. The second, by its assumption of the mechanistic character of social change, found accuracy for its statements, but threatened to dissolve the science in a thousand particular inquiries. Neither satisfied a generation who remained in economics because it satisfied their love of subtle distinction, sustained argument, and articulate statement, and who were determined to compound immutable principles into a consistent scheme of thought. This methodology could be applied to general economics only by the men who were beginning to be called "theorists." For their system-building the mechanistic logic supplied them with an indispensable tool. By permitting them to work only upon problems which could be dealt with quantitatively it emphasized the tendency to reorganize the subject about the concept of value. This meant a clearer recognition of the pecuniary character of incomes and the subordination of distribution to value theory. It meant, too, a keener perception of the complementary character of distributive shares, a closer co-ordination of them into a social dividend, and an imputation of them to units of impersonal factors of production rather than to individuals. Needless to say the institutions surrounding distribution were stripped away and it was limited to a mere resolution of income into its component parts. It is of note that this methodology brought with it to economics many devices of a mathematical character, particularly the use of diagrams, the plotting of graphs, and the method of infinitesimal differences called the calculus. With the aid of such devices the formulae of "demand and supply" were translated into the neat and compact expression "marginal utility" and the cumbersome explanations of a whole set of distributive shares were resolved before the magic of the word "productivity."

The third of the tendencies which gave to value an overlordship of economic theory was the change in social problems of importance. If their detachment from the concerns of an everyday life did not allow economists explicitly to address themselves to the perplexing difficulties of a changing social order it could not prevent the new questions indirectly from influencing their work. They could offer

little resistance when practical concern threatened to force them in the direction in which the tendencies enumerated above were already carrying them. Unlike the mercantilist restrictions which had aroused Smith, and the riddles of currency and the laws of trade which had stimulated Ricardo, the new provocation was a deep-seated questioning of the ecomonic justice of the distribution of wealth between groups under the prevailing industrial order. In a way the problem was old, for economic discontent had long been abroad in the land. But as the last half of the nineteenth century advanced the voice of protest became less of an incoherent cry inspired by emotion and acquired more of an intellectual basis. Eventually it ripened into a system of thought and a program and acquired a formal statement.

This intellectual eminence was attained by two works which were directed at the very foundations of the existing order. One, written by Henry George,[1] attacked the equity of private incomes from land. The other was a culmination of the development of a system of thought which can be traced directly back to the anti-Ricardian literature of the first part of the century. Its gradual development reached its most coherent expression in the treatise of Karl Marx,[2] which voiced an indictment against incomes from capital. George and Marx were alike in coming from without the ranks of the economists, in subordinating professional speculation and academic inquiry to avowedly propagandist purposes, and in premising their arguments for radical reconstruction upon reputable Ricardian doctrines. George used the Ricardian theory of land differentials as the basis of an argument which led to a proposal to confiscate the "unearned increment" in land values. Marx used the Ricardian theories of labor as the source of value and subsistence as the measure of wages to deny to the capitalist his claim of interest.[3]

[1] *Progress and Poverty*, published in 1879.

[2] *Das Kapital*, the three parts of which were first published in 1867, 1885, and 1894. Since this was the result of development, and since Marx had written before, the dates are not so important as in the case of Henry George's contribution.

[3] Whether Marx rightly interprets or whether he misrepresents the views of Ricardo is a subject of mere academic interest, since it has reference to a traditionalized Ricardo and not to the historical one. It can be settled only by saying that he follows the mythical Ricardo created by the socialists and is untrue to the traditionalized Ricardo of the neo-classicists.

The relevancy and pertinency of these challenges could not escape the attention of the economists.

How much of conscious and how much of unconscious intent found expression in the reaction of the men of the schools to these irritating stimuli it is impossible to say. But that the impact left a deep impress upon the newer body of classical doctrine there is little doubt. Naturally enough the single-tax argument, which was the less revolutionary of the two, received the smaller attention. In the country of its origin, one wherein land ownership was still diffused through all social classes, it was hardly necessary formally to discredit it. The sturdier economist persisted in going his way, ignoring the newcomer, while his more timid brother, oblivious to the greater danger from Marx, tucked land away for safety within the concept of capital. This merger, by adding another to the diverse elements included under this category, aided business usage in translating a waning technical concept into pecuniary terms. The translation contributed its bit toward the subordination of all economic inquiry to the dictates of the value problem.

The Marx attack was more generally, and perhaps more consciously, met. The demand of the Marxians was not formally put forward as a proposal of changes in social arrangements designed to secure future social well-being, nor was it accepted as such by the economists. It was rather a claim, based upon the right of production, to the whole product of labor or of industry.[1] Accordingly the economists assumed a juristic attitude and proceeded to sit in judgment upon the case. To that end they assumed both the immutability of existing arrangements and the validity of the ethical standard that one had a right to what he had produced, and set about finding and imputing personal responsibility for the pecuniary dividend which was the property at issue. This search

[1] It is interesting to note that the assumption "to the producer belongs the product" was held both by the economist and by the reformers. Neither seemed to doubt the possibility of imputing personal responsibility for production, a matter not at all surprising in view of the fact that it was the habit of the age to make every intellectual inquiry lead to a responsible individual. More significant is it that it should have been universally held that the proper way to dispose of such a question as this was to look back to responsibility for authorship rather than forward to the alternative social effects of keeping present arrangements intact or of changing them.

took the form of a diligent and protracted inquiry into the "origin of value" and of its most controverted manifestation, "interest." At first, seemingly zealous to escape the Marxian intrepretation, they renounced outright the cost-of-production theory, from which, by disregarding all costs save one, the labor theory had been evolved. This seemed to belie the task of imparting personal responsibility, which was the object of their quest, for it forced them to find refuge on the demand side of the equation. This led to a protracted journey beyond the frontiers of economics into the unfamiliar province of psychology, where an ultimate was found in a "subjective" personal utility, antecedent to market price. So convincing seemed this that for a time a significant group of economists viewed "cost" as a mere instrument by means of which utility was assessed and conveyed along the productive sequence,[1] and it was many years before an "equilibrium" theory of the origin of value embodying both utility and "disutility" came again into general repute.

It seems apparent that this argument served to deny the claim of labor without finding a basis for a claim by capital to any part of the product. Accordingly it was supplemented by a general re-examination and restatement of the doctrine of interest, which necessarily involved some overhauling of the accepted theory of wages. The logic which had discredited costs had, of course, robbed "abstinence," "waiting," and the other disutilities incident to capital accumulation, of their efficacy. Even if expediency required a compromise to be patched up with logic, the idea of the sacrifice involved in saving could not be retained under the old names. It required alike a rechristening and a bolstering with new supports. To the latter end a second excursion was taken beyond demand and an antecedent of interest, free from any suspicion of the influence of labor, was found in the "productivity of capital," openly avowed or thinly veiled by some such concept as "the technical superiority of present goods." Whether consistent with

[1] "As the moon reflects the sun's rays on to the earth, so the many-sided costs reflect the value, which they receive from their marginal product, on to their other products. The principle of value is never in them, but outside them, in the marginal utility of their product."—Eugene von Boehm-Bawerk, *The Positive Theory of Capital*, p. 189.

the utility theory of value or not, the former demand was met by a reappearance of the older idea of "abstinence" in the newer form of "the preference for present over future goods." These two propositions, given different names by different economists and often appearing in strange and unfamiliar forms, served further to discredit the inclusive claim of labor and to establish the right of capital to a share in distribution.

The concept of productivity, which was the heart of this explanation, furnished a clue for an elaboration into an exact quantitative system of all the problems of distribution. The idea that capital created its own return suggested that each of the instruments of production did likewise. Production, accordingly, became a synthesis in terms of which each of the productive agencies made its definite and precise contribution to the pecuniary magnitude called "the social dividend"[1] and distribution an analysis by means of which this whole is with equal accuracy to be resolved into the component parts of those who have claims upon it. Conventional arrangements were assumed, the fact of change was obliterated, and competition was given a universal efficacy. Each of the elements of production, labor, capital, land (if not included under capital), and in more than one case "risk-taking," were compounded into funds made up of units which were interchangeable and, therefore, of a like value. The value of a unit of each of these funds was found to correspond with the value of the last or marginal unit.

The various devices used to ascertain this most important of all values are much too numerous to be recounted here. Usually they involved such devices as the addition of a unit of infinitesimal size to one of the factors used in the productive combination, the appearance of a "margin of indifference," wherein labor and capital were of equal cost and value in their employment,[2] or the use of

[1] John Bates Clark, *Essentials of Economic Theory as Applied to Modern Problems of Industry and Public Policy*, pp. 74 ff. In fairness to Mr. Clark it must be said that he defines the productive synthesis in terms of goods. However, the context seems to indicate that he frequently, perhaps usually, thinks of it as a pecuniary magnitude.

[2] In these discussions of distribution the issue as between authors, if not within an author's own work, is often confused. Quite frequently one author has in mind pecuniary worth in view of the situation while another author discussing the identical problem thinks of pecuniary worth to the employer. Again one cannot always tell whether an author is telling how wages are determined or whether he is stating the

simultaneous equations.[1] The result achieved was the elaboration of a formula for the determination of the value of a unit of a fund.[2] Yet by the use of this mechanical device all the problems of distribution were easily solved. It sufficed to explain distribution between persons, for the share of the individual is equal to the rate of wages or of interest, as the case may be, multiplied by the number of units of labor power which he possesses, or the number of units of capital which he owns.[3] It likewise sufficed to make clear

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conditions under which it is profitable for an employer to hire. In general the explanations drift toward an answer to the question of how the value of a unit of labor or capital is to be found rather than toward the source of their value. The latter, which is avowedly the central inquiry, tends to be settled by a word or phrase, such as "productivity," "technical superiority of present goods," or "time preference."

[1] Note the attempt in every case to reduce the factors to such terms that they may be dealt with in the mathematical terms of the mechanistic logic. John Bates Clark, for instance, reduces land to capital, erases profits as inconsistent with the static state, and finds labor and capital alone left. These he combines and finds the productivity of each in turn by means of an addition to the combination of an infinitesimal unit of each. See *ibid.*, pp. 124–58, and *The Distribution of Wealth*, especially pp. 173–87. Henry Rogers Seager first disposes of profits by regarding them as temporal accidents, then dismisses rent as a surplus based upon land differentials, and finally comes to the problem of wages versus interest, which he attempts to dispose of in terms of a "margin of indifference." See his *Principles of Economics*, pp. 189–212, 229–43, 244–82. Friedrich von Wieser, if not more mathematically inclined, at least more conversant with the possibilities of mathematics, proceeds by the use of simultaneous equations to elaborate a formula capable of covering the situation, involving a correlation of the usually recognized factors of production. See his *Natural Value*, especially pp. 86–89. There is some disposition on the part of modern economics to dismiss the number of these factors as accidental. It is of note that none of the authors mentioned above is dominated so completely by the sheer logic of mathematics as are Pantaleoni, Wicksteed, and Schumpeter.

[2] Note the distinction between the problem of wages implicit in this distributive scheme and the older ones to which economics tried to give an answer. The subsistence theory of wages is an attempt to answer a question connected with their size. The wage-fund argument attempted to show that wages in general could not be raised by manipulation or artificial interference. The argument referred to above, in any one of its numerous forms, is an attempt to state a formula in terms of which wages can be ascertained. From the subsistence to the productivity theory the question has shifted from "how much?" to "how ascertained?"

[3] Many overt and covert productivity theorists will deny giving countenance to the concept of "a unit of labor," which, like so many of the devices with which the Marxians were fought, is quite Marxian. The assumption is usually concealed by a method of explanation which postulates a group (fund) of laborers (labor) possessed of equal ability (units of labor power). An admission of differences among laborers, an attempt at funding, and a measurement of wages from the margin, makes logically

the distribution of the whole product into the aggregates which constitute the total shares of the owners of the several "factors of production," for each of them is equal to the number of units in the fund multiplied by the value of the marginal unit. Finally the all-comprehensive problem of a rigid accounting for the whole product is solved, for it has often been demonstrated that under competitive conditions the claims of all who own units of the several funds can together be satisfied by, and only by, an exact exhaustion of the social dividend. In short, under the influence of the mechanistic logic the question of the source of value was resolved into a series of quantitative formulae which converted real questions of distribution into a complicated calculus of values.

VII

While the tendencies which have just been enumerated were remaking the content of value theory and giving it a dominance over distribution, they were also profoundly affecting its nature by changing its relationships to the various subjects of study which were beginning to constitute an enlarged field of economics. Just as they gave a new inward content to the definition of value theory, so they made it a new thing in its outward relations. Since these relationships hold the external meaning of the new definition they must be set forth in some detail.

Let us begin at the frontier, where economics abuts upon the technical and business sides of the industrial system. Here there was, first of all, a group of newly established subjects beyond the pale of the influence of value theory. It included such objects of investigation as transportation, accounting, corporation finance, and commercial organization. The impulse which made them candidates for formal study was the necessity of understanding and controlling, for public or for private ends, the instruments and

necessary the assumption of "a unit of labor," however much it may be concealed by explanations using the terms "personal differential," "occupational differential," and the like. One may be tempted to raise the question of how this unit of labor is to be determined, since it exists antecedent to the emergence of value. But since the discussion at this point aims at nothing more than to show the relationship of the mathematical character of the distributive inquiry to the dominance of the value problem, it would be stirring up gratuitous trouble to yield to such a temptation.

agencies of modern industry. Those who became engaged with the perplexities of these new subjects came in large part from without the field and brought to their task a far greater familiarity with business practices and with the ritual of technical processes than with the lore of economics or the subtleties of value theory. Their purposes were usually immediate; they knew and trusted "facts" and were wary of the wiles of speculation; they used in their labors the methodological tools of common sense rather than the finer-edged ones of academic procedure. The result was that their studies showed little disposition to pass beyond the descriptive stage; their intellectual harvest was factual rather than interpretative; and their wildest generalizations were too much in thrall to the particular to be of any general significance. Their concern with industry brought them within the general realm of economics, and they were not averse to the prestige of the name, but the sovereignty of the latter was nominal rather than actual. The closer unity into which value and distribution had been drawn severed the links which tied economic theory to the larger industrial world; it had no longer principles or tasks in terms of which it could direct, organize, and correlate inquiries into these particular fields and turn them to account in a fuller explanation of the economic order. It could offer them only the tradition of a name.

In the second place a group of studies long since recognized as belonging to economics were organized as semi-independent disciplines. Of these "money" and "public finance" will serve as typical examples. The first of these had served as a point of departure to Ricardo in his excursions into value. Yet it had at last come about that the abstract unit of value of theoretical inquiry had little in common with the more concrete monetary unit. The theory of value proved impervious to the real entrance of monetary theory. But there were traditions that could not be broken and an influence that could not be set aside. In addition the economists who concerned themselves with monetary problems were more largely "theorists" than those busied with any other practical subject. So the best that could be done was to give it a position of semi-independence wherein it might in smaller orbit reflect value theory. To that end it is significant that beginners who have had

an introductory course whose chief ingredient is value theory are generally put through "money" as a complementary course. More significant is it that monetary questions gravitate toward the problem of "the value of money," an inquiry which parallels and is a reflection of that of value theory.

The second of these examples, public finance, to which political science might lay valid claim, belongs to economics rather by historical accident than by logical inclusion. It is a by-product of Smith's concern with social policy and Ricardo's with a political program. Like money it has defied incorporation into the new-made economic theory, and, since Walker's failure to make taxation a share in distribution, its connections with the chosen field have one by one been severed. But as attention to the influence of customs duties upon international values and to the shifting and incidence of taxes attest, the hold of value theory has not been completely relinquished.

It is significant that the antithesis between the rapid development of practical problems and the inner refinement of value theory has left its impress upon each of these semi-independent disciplines. On the one hand the relevancy required by rapid change has made them fields less and less suitable for the application of principles drawn from assumptions which fail to meet current scientific tests. On the other hand the history and personnel of these inquiries have combined to prevent the notion from becoming too general that the principles of value are inapplicable to monetary and tax problems. The practical result has been a division in each of these subordinate subjects akin to that which has divided economics into value theory and applied economics. In the domain of money and credit the problem of the value of money, mentioned above, remains rather as an inquiry which parallels value theory than as an application of it, while the burning issues of the day lead to almost independent investigations of monetary and financial phenomena to which the term "descriptive" is very nearly applicable. Likewise the important current work in finance is busied with the preconceptions, administration, and industrial and social consequences of actual or prospective tax schemes. They permit value theory to find a narrow and questionable application in a quantitative

study of incidence. But even here the value of "principles" is dubious, since such inquiries tend alike to dissipate themselves as the stages of shifting are followed, and these inquiries can at best comprehend only a tiny segment of the social and industrial consequences attending the imposition of a tax.

In the third place the older subject of "general economics" maintains a nominal existence. As a more comprehensive subject of study than value theory or any of its many subordinate disciplines it finds at least pedagogical expression in textbooks. In this form it does less violence than does any other part of the discipline to the older standards as represented by the work of Mill. But the mark of change, elsewhere so apparent, is upon it, and hardly a school has passed without leaving evidence of its peculiar teaching somewhere within these treatises.[1] The conventional text upon "general economics" may begin with a chapter upon consumption, an outline of primitive industrial arrangements, or a sketch of the development of modern industrialism, but such preliminaries are gratuitous, since they have no connection with the discussion which follows. The treatise takes its real beginning from a discussion of "production," a subject seemingly impossible to reduce to terms

[1] The sentences in the text above are intended rather to characterize than to condemn texts in economics. There are no reasons for thinking that on the whole they are poorer than texts in other of the humanistic sciences or in alien fields of study. On the contrary they are generally agreed to be well above the average, perhaps even in a class by themselves. Most of them have been written by men of parts, their writers have taken their tasks seriously, and in many cases the form of a text has been deliberately selected for the presentation of an economic system. Nor can it be insisted that students have not had profitable discussions set before them. In fact there is little doubt that those who have had an elementary course in one of the standard texts do much better work in the semi-independent disciplines of economics than those who have not had such training. But it is not so certain that it is the subject-matter of the elementary course which is responsible for this advantage. In general the text is usually a larger whole, a mechanically aggregated larger *imperium* which contains a smaller and more coherent *civitas*. The discussion of value and distribution is the real organic treatise to which many useful and important, but on the whole extraneous, discussions are added to constitute an introduction to the disciple of economics as an entity. In extenuation it may be said that since the general subject lacks organic unity, an introductory text cannot properly possess it. In passing it may be remarked that such texts serve an indispensable function. They permit economists to take tentative stock of their accomplishments, or lack of them, and by their revelation of shortcomings point to the tasks which are most worth the doing.

of current value theory or to make consistent with value economics. In this the Smith tradition still lingers in technological discussions, such as the division of labor[1] and large-scale production and in the ethical twist of the age-old inquiry into productive and unproductive labor.

The influence of the newer value intent appears also in a translation of the law of diminishing returns into a law of combining proportions and in attention given to the various distributive funds which appear in Mill as "factors of production." When production is safely disposed of general economics usually unites with economic theory in a treatment of value-distribution which moves along the lines indicated above and is the least halting, the most sustained, and the most coherent part of the whole treatise. This is usually followed by a discussion of some of the more important concerns of current economic interest. In this the problems usually escape correlation with each other, with the institutional framework of the prevailing social order, and from all save a nominal connection with value theory. Almost without exception the book is closed with a chapter premised upon Smith's conception of economics and called by some such title as "Economic Progress," "The Future of Industrial Society," or "A Critique of the Present Order." In these closing discussions proposals for institutional changes are judged from the standpoint of the assumptions and conclusions of value theory. In short, general economics has become a loosely connected body of discussions of many affairs serving as a container for a coherent body of value principles which is the primary concern of its expounders.

In the fourth place the position of importance in the inchoate field of economics is occupied by "economic theory." By the favor of circumstance it has succeeded to the traditions and the good-will of the general economics of Mill and the political economy of Smith. As we have seen, its immediate concern is with the abstract questions of the origin of value and its complementary manifesta-

[1] Notice, however, the influence of the value problem in the tendency to emphasize, in the discussion of "the division of labor," the distribution of the various tasks in the process between the factors of production. This has been called "functional co-operation" and prepares the way for the distribution of "functional" distribution which is to follow.

tions in distributive shares. Its inquiries reach back into the little-explored realm of individual psychology rather than toward the more objective phenomena of the industrial world. The inward unity which it has achieved has been at the expense of its overlordship of the realm of economics and at a sacrifice of its most fundamental problem. Not only are the newer subjects of inquiry beyond its authority but the older ones are passing beyond the pale of its influence. More serious still, subjects too intimately connected with its general traditions to be studied separately, of which "production" is a conspicuous example, have fallen into neglect because of divorce from the problem of absorbing interest. Such, too, has been the fate of a consideration of schemes of economic arrangements, conventions of property, systems of labor, competition, custom, and the like. Such inquiries into institutions which are alike the changing aspects of the prevailing order and the pivot of current economic controversy are all gone.

In this way it has come about that economic theory is in no position to perform the function which it has inherited. Abstracted from these relevant inquiries it is denied the means for making scientific investigations into the various aspects of industrial life and bringing back conclusions which can be arranged into an account of the nature and measure of order in the economic world. Yet however inadequate it may be to the task, its inherited position forces upon it the necessity of furnishing principles for judgment upon the larger issues of the developing economic order. That theorists in general have not shrunk from this responsibility the pages of economic literature abundantly attest.

To be explicit, they have condemned such institutions as capitalistic monopoly and trade unionism as "abnormal" and therefore unethical, not in terms of a thorough consideration of their place in a developing industrial society, but of an argument in which the ethical judgment may be traced back to an arbitrary assumption of competition as a part of the mechanics of value determination. Again, many economic theorists explicitly, and perhaps many more implicitly, have condemned a socialistic reconstruction of society on the ground that capital is the source of interest. This, of course, ignores the institutional questions of private property and of

inheritance which involve the real question at issue, namely, the relationship of the capitalist to capital. And, to cite but one more example, that economic theorist is indeed an expert at logomachy who can use a nomenclature of "utility," "disutility," and "productivity," and yet hedge the words about in such a way that he escapes the implication of making the system of prices as a whole represent such a use of limited resources in satisfying wants as to insure to society the greatest surplus of utility over disutility.

That value theory is concerned with the mere mechanics of a single set of economic phenomena and that the economic order is a rich association in a tangled network of a large number of complementary institutions does not inhibit the theorist from judgment. It is much as if the appearance of a building and its appurtenances were adjudged good or bad because they were capable or incapable of exact measurement in terms of accepted formulae. In short, economic theory is under the constant temptation to pass judgment upon the economic order in terms of the mechanics of value determination. That, in general, theorists have kept themselves unspotted from this temptation no one would have the hardihood to affirm.

VIII

If this were the end of this study its sequel might be written in legible terms. But change, tendency, inward impulse, outward pressure are of the present as well as of the past, and in view of these the place of value theory in economics has not been fixed beyond peradventure. While we are too much a part of the current which sweeps us and our speculations into the unknown to sense its deeper drift, nevertheless a perspective reveals certain tendencies threatening the all-sufficiency of value theory. Therefore it seems advisable, so far as may be, to set down these tendencies and appraise them, for even their uncertain answer is preferable to mere surmise.

The first of these tendencies is a weakening of the ties of tradition. Those whose concern is directly or indirectly with economic speculation may be divided quite roughly into the four classes: the laity, the workers in special fields, the workers in related subjects, and the accredited theorists. In a democratic country every

man is his own economist and the layman in economics we have with us always. He takes no theory which he has learned in the schools as a point of departure, he knows no dictum of consistency whose exactions circumscribe the range of his interests, and he has no false modesty which constrains him to learn what others have said before he lifts up his voice. The affairs of current industry and politics supply him with an interest which leads him afield into speculation. In time lay thought, even with its practical bent and its shifting content, becomes organized and cannot be denied attention. Ever since the subject of study became economics, and even long before, lay thought controlled opinion and forced issues upon the professionals. It inspired acceptance or provoked denial from the men of the schools. How much of accredited statement has been inspired by an attempt to explode "popular fallacies," how much of it is a mere refinement and systematizing of crude lay notions only the careful student of the history of economics may know. But it is common knowledge that many men whose names are of note in the development of the subject were without professional training and were exalted from the laity into this higher rank. Since at present even many practical economists profess to repudiate current value doctrine, because they will not take the trouble to try to understand it, it seems reasonable to believe that it is finding no readier acceptance among the laity. In fact it is difficult to find many points at which it has much in common with lay economics or is very relevant to current economic problems in which the layman is interested. In this divorce from the common currents of thought lurks a danger more or less formidable to the present position of value theory.

Tradition sits almost as lightly upon the semi-independent subjects of economic inquiry. The conditions which made of value distribution a coherent whole severed its ties with these fields and left the workers in them free to achieve their own salvation or condemnation. The anarchy which followed expressed itself for a time in statements that were quite valueless, because they did not transcend the particulars upon which they were based. But, in due time, the very freedom from tradition gave the larger aspects of these subjects a chance to display themselves through

the maze of countless inductions. This once achieved, their development was subjected to principles drawn from within and foreign to those finding expression in value theory. To cite examples: accounting has broken through its multitude of bookkeeping details and has become a study of the pecuniary calculus as an agency of business management, governmental control, and social organization; transportation has become associated with the theory of economic development in relation to the territorial division of labor; and corporation finance has discovered in the correlation of savings with investments a question of economic organization which is an aspect of the older general problem of "provision for the future." In these and other subjects mere descriptive effort is passing; in them current thought is becoming more interpretative and speculative, or, if you will, more theoretical; and the lines which bind them to each other, to value problems, and to the general economic order are beginning to be explored.

A similar danger to the prestige of value theory lies in attacks from the followers of other academic subjects who never knew the weight of economic tradition. The ramification of such subjects as value, wealth, and welfare run far afield into logic, ethics, metaphysics, and many another subject, even into the confines of epistemology. The concepts of utility, of "an economic man," and of "an economic judgment" involve just enough of a trespass upon the vested interests of others to bring upon theorists protests from the psychologists, be they physiological, introspective, social, or what not. The implicit assumptions of the immutability of private property, of inheritance, and of the other conventions which make up a complicated wage system have impelled students of political science, of legal history, and of comparative jurisprudence to protest against the distortion of fundamental truths supposed to have been furnished by them. Last of all, the sociologists, who want no particular provocation, but regard an occupation of territory anywhere within the domain of the humanistic sciences as wanton trespass, have launched a vicious attack upon value theory, assumptions, methods, conclusions, and all. In the past, economics has never been able to meet vigorous and sustained attack without a thoroughgoing internal reorganization. The present attack comes

from many quarters upon an economic theory whose organization is quite rigid and whose resources in allies are small.

Finally, even the students of theory are beginning to rebel at a tradition which binds them to conformity. Usually they are concerned with some other economic subject, where they get a taste of freedom, discover that the principles of value are not in themselves sufficient to unravel complicated economic enigmas; and encounter fact, thought, and opinion which suggest inquiries into aspects of the economic order upon which value theory can throw no light. Or, even more significant still, they have had training in ethics, legal history, or sociology, where they have bumped into a universe within which accepted economic theory can have no being.

The second of the current tendencies which threaten to drag value theory from its place of authority is the growing realization by value theorists of the inadequacy or incompleteness of their work. For some time the conviction has been growing that the ultimates of explanation are meaningless phrases or mere halfway terms along the way to more real objectives. "Marginal utility" as an antecedent of price has been shown to assume the purchasing power of the consumer, which is an expression of a pecuniary income and one of the values which it is used to explain. A similar circularity, even in terms of the mechanistic logic assumed, has been proved characteristic of the best-known schemes of value.[1]

The great gap between an explanation of value in a Crusoe economy in terms of "marginal utility" and the assumption that

[1] A clear exposition of the circularity in the argument used in the establishment of value-distributive systems by several well-known writers is to be found in Benjamin M. Anderson, Jr., *Social Value*, pp. 34–48. Of course it need not be insisted that not all the value inquiries of the utility-productivity economists involve such circularity. Changes in particular prices and in the levels of prices do not involve it, even if the new prices are necessarily to be explained in terms of the old. The question of the genetic origin of value may be free from it. But it seems inseparable from an explanation of distribution upon the basis of prices which have their bases in utilities to the individuals in the market, since the necessary reduction of such utilities to pecuniary magnitudes, upon which the argument depends, must be in terms of purchasing power, and hence of the prices of the personal services and the uses of the property of these individuals. It may be added that for an inquiry into market process which seeks to explain things in terms of their mutual relationships the accusation of "circularity" is irrelevant.

it is to be explained in a like term in modern industrial society has often been pointed out. One economist has tried heroically to bridge the logical gap by inventing the new term "social marginal utility,"[1] and another has tried to blot out the psychological basis of demand by limiting utility to mere desiredness.[2] Others have tried to improve the logic by giving up the word, and "marginal significance," which seems to have less of an individual and more of a social connotation, has been increasingly called upon to take a place relinquished by "marginal utility." A writer of note has gone so far as to attempt to find refuge from such perplexities in support from "the newer volitional psychology."[3] Still another, more conscious of the inability of such devices to overcome fundamental difficulties and unwilling to take the method of escape which genetics offers, has coined the term "social value" to cover the bewildering medley of antecedent influences converging in price.[4] These fundamental difficulties are also inherent in all "productivity" explanations, since "marginal productivity" is simply a variant of "marginal utility," used as an ultimate in the explanation of the values of units of labor and of capital. In addition the latter have been stripped of the ethical connotations in which the word "productivity" is so rich. In view of this, productivity theory has been reduced to the statement that under competitive conditions each unit of labor and of capital tends to receive a return which is equal to the pecuniary worth to the employer of the least remunerative unit normally employed. Such a statement appears to a large number of economists a mere truism.[5] Stripped of their incidental implications, subjected to unflinching analysis, and reduced to their lowest terms, all these theories, whatever be their

[1] Edwin R. A. Seligman, *Principles of Economics* (6th ed.), pp. 180–82.

[2] Herbert J. Davenport, *The Economics of Enterprise*, pp. 85–87.

[3] Frank A. Fetter, *Economic Principles*, pp. ix, 109–110.

[4] Benjamin M. Anderson, Jr., *op. cit.*, pp. 99–199, especially pp. 152–53.

[5] See John A. Hobson, *Work and Wealth: A Human Valuation*, pp. 173–74, and Walter M. Adriance, "Specific Productivity," *Quarterly Journal of Economics*, XXIX, 149–76. The following statement will receive the assent of a large and increasing number of economists: "The theory is true (if at all) only if we give productivity its second meaning, 'productivity of value'; the theory justifies the present distribution (if at all) only if it has its first meaning, 'output.'"—Henry Clay, *op. cit.*, p. 320.

individual variations, tend to revert to the supply-and-demand formulae of the mid-Victorians. This reversion to type seems to strip away the elusive refinements of a generation of economists who have converted distributive problems of practical concern into inquiries of a merely academic character.

Even more pertinent than this conviction of inadequacy is the growing sense, even on the part of its exponents, of the incompleteness of this scheme of value and distribution. In this country J. B. Clark has long been conscious of the limitations imposed upon his conclusions by the rigidity of the assumptions which he has allowed himself. For a long time he held out the promise of a "dynamics" which, together with his "statics,"[1] was to set forth a complete system of distribution.[2] When a part of the task came to be done it appeared that to a "static" treatment, which was a mechanics working within the limits of certain assumptions, he had added a "dynamic" treatment, which was more mechanics working within the limits of other assumptions.[3] Although Carver has long been the champion of a value-distribution system which is singularly like the positive part of Clark's work, he was quick to see that Clark's ethical conclusions are not an essential part of his system.[4] Yet his zeal for a good cause could not permanently be satisfied with positive economics, and he was compelled to add to an exposition of the laws of distribution[5] a second discussion, wherein the pent-up ethical implications of productivity theory reach explicit statement. In this the moral order is fashioned in the likeness of a hypothetical economic order established upon the principle of competition. In this the ethics-indorsing principle is

[1] John Bates Clark, *The Distribution of Wealth*.

[2] *Ibid.*, pp. vi–vii. See also his "Future of Economic Theory" in the *Quarterly Journal of Economics*, XIII, 8–13.

[3] John Bates Clark, *The Essentials of Economic Theory*. See especially pp. 203–6, where Clark enumerates the more important of the problems of dynamic economics. Yet "a process of growth cannot be constructed out of a series of transition periods; dynamic theory cannot enliven the static state into a social process."—Walter Stewart, "Social Value and the Theory of Money," in *Journal of Political Economy*, XXV, 1000.

[4] Thomas Nixon Carver, "Clark's Distribution of Wealth," in the *Quarterly Journal of Economics*, XV, 578–602, especially pp. 578–79.

[5] Thomas Nixon Carver, *The Distribution of Wealth*.

as arbitrarily assumed as it is in discussions of the productivity theory.[1] The same sense of incompleteness is evidenced in recent writings by von Wieser and Smart, two of the three men who were most influential in giving Austrian thought its American vogue. Nearly three decades after the appearance of his well-known work upon value,[2] in a book which attempts to reduce industrial society to mechanistic terms, von Wieser tries to add the magical something necessary to make value theory the basis for larger social judgment,[3] while Smart, who was being lured away by economic history, writes a confession of economic faith that in some particulars amounts almost to a recantation.[4] Finally the prevailing habit of making value-distribution schemes the essential parts of general texts is in a sense a confession of the incompleteness of such systems for the larger purposes. The discussions of practical problems usually intervene between the treatment of value and distribution and the chapter in which the prevailing order is arraigned for judgment. While such discussions are quite impertinent to the verdict, their intervention gives to the latter the appearance and prestige of being based upon something more comprehensive than a study of the mechanics of value distribution.

A third of the current tendencies threatening value theory with deposition is a change in the character of contemporary social problems. Even during the latter years of the last century and

[1] Thomas Nixon Carver, *Essays in Social Justice.* In modification of the statements in the text it must be said that the competitive moral order is at times qualified by Carver as evidence of the influence of Thomas Carlyle and of common-sense individualism show. Yet with these qualifications one is not likely to find time or inclination to quarrel over the differences between Clark's system of ethics, which is an implication of a productivity theory established upon a competitive principle, and Carver's moral order, which is explicitly established upon the same competitive principle without the intervention of the productivity theory. It is of note in passing that Carver has in *The Religion Worth Having* created a religious order in the likeness of the same hypothetical competitive economic order.

[2] *Natural Value,* first published in 1888.

[3] Friedrich von Wieser, "Theorie der gesellschaftlichen Wirtschaft," in *Grundriss der Sozialökonomik,* I, 125–444. See also the review by Wesley C. Mitchell, entitled "Wieser's Theory of Social Ecomonics," in the *Political Science Quarterly,* XXXII, 95–118.

[4] William Smart, *Second Thoughts of an Economist.*

the first decade of the present one, when the development of economic theory responded so largely to influences from within, the fact of external circumstances was by no means negligible. In the second decade of the century, with tradition at a low ebb and the voice of authority uncompelling, its influence is far greater. The many particular problems of the older period, concerned as they were with credit, taxation, corporation control, monopoly, unemployment, trade unionism, and immigration, are still at hand and clamoring for solution. But without losing their identities they are merging into the larger and more comprehensive problem of the control of economic activity and development.

This problem of control has come to be the vital social problem, in terms of which more particular problems have their being and must find their solutions. Current ethics is concerned with stating the ends of such a controlled development; current politics is busied in its larger inquiries with finding agencies of authoritative action useful for the attainment of these ends; and even current accountancy has been evoked to elaborate devices without which the social life which surges through pecuniary channels will continue to defy direction. In these quests the way leads beyond the market-place, where such values as the totality of external circumstance permits are mechanically fixed, to the medley of changing conventions and institutions which make up social arrangements. Accordingly the way of understanding leads to other things than the imputed sources of various values and the rituals of their emergence. It turns rather to the mechanism of technique and organization; to the institutions of property, inheritance, and contract; to the scheme of ideals and values which constitutes the intellectual world of industrial society—in short, to the "plane of competition." Whatever knowledge value theory may offer, wisdom must wait upon an understanding of the relationship of these devices of control to each other in the unity called "the economic order," the direction of the development of which has become the contemporary problem of first importance.

To the same general inquiry into the end, nature, and means of control the ever-old, ever-new problem of "rich man, poor man" is

now tending. The older value-distribution theory throws little light upon the positive inquiry of "why some of us are better off and others of us much worse off than the average"[1] and its ethical complement of "what can and should be done to make some of us still better off (or worse off if you please) even at the expense of others of us." Nor is it in the least germane to the inquiry into why the division of income between pecuniary groups tends to perpetuate itself from generation to generation. Such issues can be intelligently dealt with only when we have learned something of the institutions of society in their relations to the well-being of industrial groups.

If a single aspect of this problem may be used to illustrate the change in its nature which has become general, the development of the socialist argument will indicate the shift in emphasis. As we have seen, Marx found a theoretical basis for socialism in insisting that labor is the source of all value and that profits are the fruits of exploitation. The economists without apparent difficulty cut away the basis of Marx's scheme of social reconstruction by showing that labor is not the source of all value. As an answer to the Marxian argument the theory of specific productivity is clear-cut, intelligible, and free from the ambiguities which are invariably read into it by students who dissociate it from its practical setting and treat it as an abstract distributive system. Its assertion that under competitive conditions the value of the service of the laborer on the market and the wage paid by his employer tend to be equal robs at least personal exploitation of its argumentative efficacy.[2] Even

[1] Edwin Cannan, *Wealth*, p. v.

[2] The full meaning of the specific-productivity theory is usually missed by those who reject it. Their mistake is in failing to note that since it must explain wages it must explain wages in terms of something else, and that, therefore, it seeks to establish an identity between *two* things. One of these is manifestly wages; attention to the argument will show that the other is the value of the services of the laborer (his productivity) in the competitive market. It may, of course, be replied that the latter can be found only by finding the former. But this is not enough. Logically the two things have separate existences, and it was only by a clear recognition of their distinction that Marx found a difference between them. By subtracting wages from the product of the laborer he discovered the exploitative income of the capitalist. Therefore, in establishing an identity between the two things Mr. J. B. Clark has not been guilty of the simple truism of which Mr. Hobson accuses him. (See John A. Hobson,

when it was realized that the economists had by far the better of the argument, the socialists did not completely abandon it. It was far too valuable for propagandist purposes to be scrapped. But in their more serious work they shifted the ground of attack. They have substituted "the system" for the masters, a change for which they could find much warrant in the work of Marx, and have examined private property, freedom of contract, personal competition, pecuniary valuation, and the other devices which make up "wage salvery" for opportunities for exploitation perchance lurking there. For a time the more belligerent theorists were content to fight the enemy upon the old field of combat, ignorant that a strategic retreat had carried them to more defensible positions. But if the theorists of today are less prone than were those of yesterday to allow wordy propagandists to dictate the subjects about which they shall think, their concern with the larger drift of things, of which the socialist agitation is a mere incident, impels them to turn aside somewhat from the passing problem of the more immediate division of pecuniary income to the more relevant and fundamental one of the distribution of wealth.

A fourth of the current tendencies threatening to cast value from its lofty pinnacle is a change in the viewpoint, methods, and assumptions of many workers in the humanistic sciences. There was a time when economics, like politics, law, and religion, could prosecute inquiries to their logical termination in the act or will of some responsible individual. When the matter at issue was one of whether labor or capital was entitled to a given bit of income, and economic theory was performing the juristic function of passing upon individual claims, explanations found their proper and satisfying ultimates in the laborer's might and effort or in the capitalist's sacrifice. But in view of the newer and more comprehensive problem of control, such simplicity will not do. The laborer's meager wage and the capitalist's scanty interest are alike affected by all the social conventions which find expression in demand, by

op. cit., pp. 173–74.) The number of assumptions underlying the proof, the use of such a questionable device as that of funding labor, the protracted nature of the argument, and, above all, the recognition that two concepts are involved, prevent it from being reduced to the oft-quoted statement, "the laborer gets what he gets."

the technique and organization of industrial enterprise, by the arrangements which give to the prevailing order its dominant characteristics, by the distribution of opportunity which effects quite differently the development of latent talent and capacity among different social groups, and by the world of ideas and values within which these groups have their precarious economic being. When the issue was a clash between current interests, it was quite proper to forget such limitations upon productive contribution and upon reward, or to crowd them into the all-sufficient concept of productivity.

But since the question has become one of control, the real interests which clash are all in the future. It is in the very capacity of the institutions to be modified that the possibility of a program of control lies. By their modification different capacities of the laborer may be developed, he may work with a different technique or under a different organization, the world of values and the scheme of ideas amid which he orders his life may be changed. Even if the older theory is true, and his reward still continues to be an expression of his specific productivity, its amount may be very different because the conditions under which he works have been altered. In brief, the older value theory with its personal ultimates is irrelevant to problems of control; it must be superseded by an inquiry into the relations of the material well-being of the several social groups to their institutional environment.

The conditions which are denying the assumption that only individuals can play a causal rôle in economic activity are threatening the mechanistic logic. So long as inquiries were of a quantitative character and could terminate in precise formulae its method was useful. It is still indispensable for many economic inquiries which retain and will continue to retain this character. But the changes in interest and in problems which have been mentioned are bringing to the front a new type of inquiry. For instance, the question of the single tax is no longer one of granting or withholding rent from the landlord because he is or is not responsible for it. It has become a question of the social expediency of the content of the private ownership of land. Again, the inquiry into personal responsibility for the income to capital has been superseded by an

interest in the social function of private property, pecuniary valuation, and like institutions.

In similar wise there have come to the front questions of the functions performed by the pecuniary calculus, by the market, by law, and by the state in a differentiated industrial society. It is being said that these and kindred institutions make up the intricate, relatively stable, ever-changing network of arrangements which is called the economic order. The identity of each of these institutions is to be found in its function; its function lies in its complementary relationships to the other institutions which with it make up the order. Because the newer questions are not concerned with the structure, division into parts, and detailed arrangements of these institutions they cannot be answered by the inquiries of law, political science, and other disciplines which abstract them and study them in isolation by the use of the method of the mechanistic logic. Their separate and complementary rôles in maintaining and imposing dominant characteristics upon the economic order call for a distinctively economic treatment. But, unfortunately for the mechanistic logic, the infinite number of the relationships in which lie the identities which are the subjects of study make a comprehensive account of the economic order impossible. Furthermore, since change is an invariable accompaniment of the system, the character of each of these institutions is constantly changing. Since the identity of each lies in relationships, its nature prevents the resolution of the economic order into parts to be studied separately and an aggregation of the smaller truths into the one large truth which is desired. The contribution of each to the realities of the others prevents the use of a method which assigns characteristics by including an object of study within or excluding it from a group. Such changing and intertwining identities cannot be caught and pent up in exact formulae.

A new method of procedure, consistent alike with the objects of study and the nature of the inquiry, must be found. Their relationships as aspects of a single whole suggest that they be explained in terms of each other and of the all-inclusive economic order. The number of the relationships of each, far too many to be exhausted by any series of statements humanly possible to make,

suggests that the process must be a selective one. The pattern-defying reality of each, with a variety and richness of meaning which no mechanistic creation could impart, suggests that the method be a genetic one. The method requires, in short, an explanation in genetic terms of the most important relationships of the most important institutions to each other in the larger complex of the economic order. It will never be able to produce the precise results of a definitely quantitative character which are demanded by the older economics or the newer ventures into the field; but its concern is with questions to which such answers are meaningless. This method of "the genetic logic" has already found a place in investigations in various branches of philosophy, in legal history, in political science, and in sociology. Its invasion of economics began more than a decade ago, and its devotees have attracted at least enough attention to have the epithet "geneticers" hurled at them by the neo-classicists. Incidentally it may be added that habituation to this method gives one interest in and tools for doing other things than exercises in value theory.

Such, in brief, are the tendencies which threaten the position which for many years value theory has enjoyed as the dominant subject in the most important of the humanistic sciences. That they are more than isolated influences pulling economic theory in several different directions it is impossible positively to affirm. It may be that those who are most responsive to the tendencies discussed above are not conscious whither they are going; it may be that the several groups of workers affected do not appreciate their mutual opposition to the dominance of value theory; it may be that it is impossible for them to pool their contributions into a new economic theory which can give an organic interest to the larger field. But fortunately there is evidence that they are mere aspects of a single general intellectual movement. In economics one can discern various groups who assert that they are concerned with the problem of control, the theory of welfare, the nature of institutions, and the application of the genetic method. But since control sets the problem, welfare fixes the end, institutions are the changeable factors through which control must be exercised, and the whole is an affair of development which must be dealt with genetically,

there seems no reason why eventually these groups of protestants may not join in a common enterprise. There is no manifest reason why such a venture should not accept the conclusions of the newer political science about the nature of authoritative institutions, and why it should not make itself foursquare with modern psychological notions about human behavior and with the modern sociological concept of the nature of society. Speculation then might be expected to recover the ground lost when it was limited to the value problem, and to find fruitage in due process of time in a theoretical explanation of the economic order. Such a general economic theory might restore order among the various separate disciplines and make them bend their efforts to the common cause. It is true that they might rebel at such external control; but wisdom ripens even in Boeotia, and the virile, if backward, subjects of the newer economic inquiries might be expected eventually to see the advantages of such an actual control over the nominal rule of a pretender. But this is speculation, and speculation about speculation bids fair to pass into the kind of theory which knows not fact.

IX

Thus it comes about that this study can end neither with a mandate nor with a prophecy. Its concern has been an elaboration, cumbersome and elusive to be sure, of a single definition; its task has been to state with the necessary detail the place which value theory holds in economics. Even if a recitation of the evasive and changing facts of *genus* and *differentia* occupies many pages, and even if they are largely of the type to which the word "tendency" is most appropriate, they fall far short of a definition of value theory in terms of the economics of tomorrow. At best a statement can be made only of the alternatives which seem to be lurking in this bundle of conflicting tendencies. In brief compass they are:

First, value theory may continue to hold its position of dominant intellectual importance. This may be because its traditions, its vested rights, its systematic character, its real usefulness for certain problems, and the opportunities which it offers its workers for cogent and subtle thinking are assets which cannot be taken away. Or it may be that a clear appreciation of the necessity of a symbol

for holding together the conglomerate parts of a comprehensive and varied field of study will allow it to retain a pre-eminence which is nominal rather than real. Or again, most hopeful of all, it may perchance come about that someone will succeed in doing what still remains undone and by translating value theory into a larger product will make it a real basis for a judgment upon the social order.

Secondly, it may lose its eminence, leaving the general subject to fall apart into separate inquiries. Its exclusive concern will then be its direct and proper task of formulating the mechanical laws of the determination of value in a pecuniary society. Its conclusions will be principles which cannot be ignored in a consideration of practical problems concerned with pecuniary values and with market prices. But it will become, along with trade unionism, money, and corporation finance, one of a co-ordinate group of subjects. Yet, since the field of economics is vast, its subjects many, and its personnel large and varied, its displacement may well result in intellectual anarchy, a clash of conflicting opinion, a babel of tongues, a medley of dogma and counterdogma.

Thirdly, it may lose its place to some other subject which can give a new unity to the field, organize the host of subordinate inquiries under the principle of an intellectual division of labor, and make them serve a larger purpose. Investigations into particular subjects are indispensable, but their results cannot be utilized unless they are pertinent to the larger matters at issue. Practical problems are inextricably intertwined and no one can be safely handled unless it is dealt with in a knowledge of how others are being treated. Each has stamped upon it the indelible impress of the industrial system apart from which it has no place. There seems, therefore, the possibility of the emergence of a new economics, whose problem it is to explain the institutions which together make up the economic order, of which particular disciplines are mere aspects. An understanding of the principles of order in industrial society is necessary to any rational program of control. Yet, though such a study would fulfil a practical, even an ethical, function, it need be only of the most positive character, conducted by economists who are committed to no practical proposal. The tendencies which have been enumerated seem to hold out some prospect of a return of the

older economic theory, concerned as it was with institutions, to the position now occupied by value theory. Or again, it may be that some other academic discipline, old or new, which abuts upon the frontiers of economics, will cast covetous eyes upon the untilled and unpossessed fields of economic institutions, and will take advantage of the waning influence of value theory to seize the territory and to deny to economics its autonomous independence.

However this may be, the dominance of value theory just now seems to be becoming merely nominal, and the labors in semi-independent subjects seem to be passing from description to speculation and interpretation. In any case a change in the language of economics seems inevitable, a change whereby "economic theory" will cease to mean value theory.

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